REMARKS/ARGUMENTS

Applicant requests reconsideration of the application based on the following remarks. Applicant has not further amended the pending claims as it is unnecessary in order to distinguish the prior art relied upon by the Examiner.

The Examiner has rejected claims 1-20 under 35 U.S.C. 103(a) in view of the teachings of Kramer et al. '727 in combination with Gwin '483. The Examiner has further rejected claims 5-7 and 12-15 on the basis that "it is common engineering practice to provide suitable numbers of tension harnesses extending across and connecting suitable non-adjacent pairs of vertices in various arrangement as claimed as an obvious matter of design choice ...."

The Examiner has also rejected claims 1-18 under 35 U.S.C. 103(a) in view of the teachings of Bryant '852 in combination with Eubank, Jr. '433.

The combination of Kramer et al. '727 and Gwin '483 is not one a person of ordinary skill in the art would be led to make except, as the Examiner has done here, to recreate the claimed invention. Such hindsight reconstruction based on the teachings of the invention itself is clearly improper. *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 664-666 (Fed. Cir. 2000).

In order to properly combine prior art references, there must be some motivation or suggestion to combine. *Id.*. Here, the Examiner contends there is motivation to combine because both Kramer and Gwin relate to a frame for a shelter structure comprising poles and a membrane, and because Gwin is a "teaching reference" that teaches to use a tension harness to solve the same problem as defined by the applicant. But the Examiner misunderstands the teaching of Gwin. When properly understood, the frame structure taught by Gwin is very different from that taught by Kramer. Morever, the "bungee cords" taught by Gwin solve a very different problem from that solved by the present invention. Accordingly, the Examiner is wrong in concluding a person of ordinary skill in the art would either look to Gwin for a solution, or would be motivated to combine the teachings of Gwin and Kramer.

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As properly understood, Gwin teaches a rigid frame structure with four rigid upright support legs at the four corners of the structure, as shown in Fig. 1. Around the perimeter of the structure, and connecting adjacent support legs 15 are rigid pairs of "cross tubular elements 36 and 37." The elements 36 and 37 are pivotally secured to the support legs 11-14 and to each other at pivot points as shown in Fig. 5. The cross over of the rigid tubular elements 36 and 37 forms the four sided "opening," which the Examiner contends is similar to the four-sided opening of the crossing flexible poles in the present invention. However, the similarity is merely a coincidence.

The flexible poles of Kramer and of the present invention are crossed to form a flexible frame structure defining a volume beneath the frame. The pole crossings in the present invention define the vertices of the openings and are directly connected by tension harnesses to tension the frame structure. The poles comprising the frame also support the membrane that shelters the space.

In contrast, Gwins frame is rigid and does not require tensioning. The rigid tubular elements 36 and 37 of Gwin are crossed merely because they are connected at pivot points so that they can be folded for easy erection and dismantling. See Gwin, col. 1:5-10; Fig. 1. Moreover, the crossed tubular elements 36 and 37 provide no support for the "waterproof covering 18." Rather, the covering is supported directly on 8 bungee cords 28 that are connected between a top hub 20 and 8 points on the frame. See col. 1:51-56; col. 2:37-63; col.3:10-20; Fig. 1-5. The 8 points include 4 points at the upright legs (see Figs. 1, 4) and 4 points mid-way between the legs on the rigid tubular elements 36-37. In Gwin, the bungee cords are tensioned in order to provide direct support for the covering so that it will not sag when it rains or the like. Col. 1:55-57. However, the bungee cords do not tension the frame, because it is already rigid and does not require tensioning.

The Examiner contends that the mid-way connection points of the bungee cords 28 connect and tension opposite vertices formed by the crossing tubular elements 36-37 and therefore provide the elements of the presently claimed invention that are not taught by Kramer.

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There are several reasons the Examiner is wrong. First, as taught by Gwin, the bungee cords do not tension the frame by tensioning poles at the vertices. The frame of Gwin, including the crossed tubular elements 36, 37, is already rigid and does not require tensioning. Second, the frame of Gwin does not support the waterproof covering. The tensioned bungee cords themselves support the covering. The bungee cords are merely tensioned between the top hub 20 and the midpoints of the rigid tubular elements 36-37 so that they are equally spaced around the perimeter of the structure. Third, even if the bungee cords did tension the vertices of the crossed tubular elements 36, 37, those vertices are not formed by crossing poles, as is characteristic of the present invention, and as recited in the pending claims. This is clearly seen in Gwin Figs. 1, 5. (The bungee cord would have to connect the other set of vertices of the rigid tubular members 36, 37, which are defined by pole crossings).

In short, Gwin teaches a very different type of structure (rigid) than taught by Kramer or the present invention (flexible). Moreover, the bungee cords of Gwin perform a very different function and solve a very different problem (providing direct support for a covering) than the tension harnesses of the present invention (tensioning a flexible frame). Accordingly, while the Examiner desires to combine the teachings of the Kramer and Gwin references to recreate the present invention as claimed, it is apparent that a person of ordinary skill in the art would not be led or motivated to do so because the structures are very different and are directed to very different problems. The Examiner's attempted combination is improper hindsight reconstruction and is not based on any motivation or suggestion apparent from the references.

Additionally, the Examiner cites no support whatsoever for her claim that it is common engineering practice and a matter of design choice to provide tension harnesses connected directly across openings formed by crossings of flexible poles to tension the opposite vertices of each opening. That is the teaching of the present application, but there is no suggestion of that anywhere in any of the cited references.

Turning to the combination of Bryant '852 and Eubank, Jr. '433, Bryant '852 teaches a frame and dome tent structure in which multiple poles are crossed to form triangular and

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polygonal openings. Col. 1:43-44. Bryant '852 contends that as a result, the structure has increased strength and rigidity. *Id.* In Bryant '852's structure, poles are arranged in pairs, and cross such that a polygonal opening is formed directly at the top of the structure. Col. 2:58-3:21; col. 3:33-38; Figs. 2-5. This is done to provide a location to provide a vent. Col. 3:33-38. In addition, each pair of poles has first ends that terminate at the same point and second ends that terminate at different points. See Col. 2:58-3:21; Figs. 2-5. A problem with this arrangement of poles is that there are no pole crossings substantially at the top of the frame structure. To the contrary an opening is intentionally formed for venting and this provides a location substantially at the top of the structure where water can pool or puddle, and eventually leak into the structure.

Eubank Jr. '433 teaches a completely different type of structure in which a plurality of straight, rigid struts 50 are connected end to end and are extended in parallel from parallel points on a common plane to another set of parallel points on the common plane. This forms a vault rather than a dome-shaped structure. Further, Eubank '433 includes cross struts 52 that extend longitudinally from one end of the vault to the other and cross the struts 50. The struts 50 do not terminate at either end in the common plane. Thus, while a number of four-sided openings are formed, none of them are formed by the crossings of poles that are in an arch shape under tension, and that terminate at both ends in a common plane. Moreover, none of the struts of Eubank '433 are arranged to terminate in a common point in a common plane. The tension means 82 therefore do not traverse openings in the frame that are formed by crossings of poles with ends that terminate in a common plane, as recited in the pending claims.

Applicant has amended pending independent claim 1 and dependent claim 4 to further define the invention to note that the crossing, arcuate-shaped poles that form the dome-shaped frame structure are arranged in groups of three, with the ends of each pole in a group starting at a common point and ending at a common point. This unique structural arrangement enables the structure to provide pole-crossings substantially at the top of the frame structure, and to overcome problems with water puddling at the top of the structure and leaking into the structure. None of the references of record, either alone or in combination, teach or even suggest a frame structure or a shelter structure as recited, wherein crossing poles are arranged in groups of three

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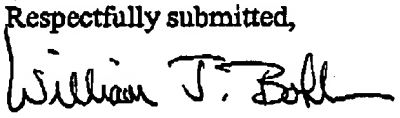
with the ends of each pole in a group starting at a common point and terminating at a common point, such that a dome-shaped structure with four-sided openings is formed. Moreover, none of the references either alone or in combination teach or suggest a tension member extending across any of said four-sided openings between vertices formed by the pole crossings of such a unique structure.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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